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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,329	12/16/2003	Harue Nakashima	740756-2685	3698

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EXAMINER

LIN, JAMES

ART UNIT PAPER NUMBER

1762

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/736,329

Applicant(s)

NAKASHIMA ET AL.

Examiner

David Turocy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/03, 7/04, 2/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Claims 24-25, and 27-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 5/25/2006.

2. Applicant's election with traverse of formula 17 in the reply filed on 5/25/2006 is acknowledged. The traversal is on the ground(s) that the election of species is unclear because the restriction of the claims discloses formulas 11-28, but the pending claims are not limited to such formulas, wherein the claims are generic to the more specific disclosed formulas 11-28. This is not found persuasive because claims 11-28 are all species of the claimed generic compounds (claims 24-28), but also a species of the claimed broad organic compound with a Bronsted acid and an electron pair as required by claim 19.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 19-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claims 19-30 are rejected as being indefinite because they claim co-deposition without the substrate coated with the coating. In other words, the claims do not positively recite any substrate with which the materials are to be co-deposited.

Claims 19-23 are rejected as being indefinite because the phrase "proton-donating functional group showing Bronsted acid" is awkwardly written and unclear, it appears as though the phrase is redundant where a Bronsted acid is defined as proton donating. Additionally, a functional group showing Bronsted acid is indefinite because the examiner can not determine the metes and bounds of what "showing" a Bronsted acid encompasses.

Claims 19-23 are rejection as being indefinite because the phrase "an organic compound including a proton-donating function group showing Bronsted acid, a function group having a non-covalent electron pair, and a metal salt" is unclear. The phrase appears to claim the organic compound includes, a proton donating, a non-electron pair, and a metal salt. However, as claimed in claims 24-30, the metal salt is co-deposited with the organic compound and not included in the organic compound.

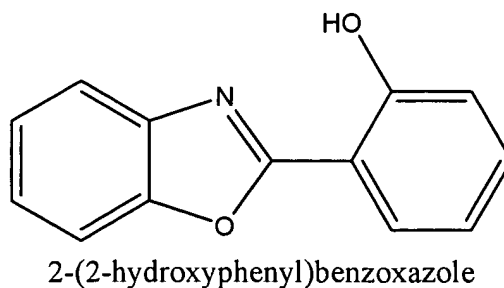
Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 409328679 A, hereafter JP-679.

JP-679 discloses a method for manufacturing an EL device comprising an anode, a cathode, and an EL layer between, wherein the EL layer comprises at least one organic compound layer, comprising the steps of codepositing a 2-(2-hydroxyphenyl)benzoxazole, which comprises a Bronsted acid and a non-covalent electron pair, and a zinc acetate (abstract, 0031). JP-679 discloses supplying the organic compound and zinc acetate sequentially, however, no invention is involved in the broad concept of performing simultaneously operations, which have previously been performed in sequence. *In re Tatincloux*, 108 USPQ 125. Therefore it would have been obvious to one of ordinary skill in the art to supply simultaneous, i.e. codeposit, the organic material solution and the zinc acetate rather than the claimed sequentially with a reasonable expectation of success.



Claims 20-22: the structure as above contains a hydroxyl group and a azomethine group as required by the claim.

Claim 23: the metal salt is zinc acetate.

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7. Claim 19-23, 26, and 29-30 as dependant from 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6316130 by Heuer et al, hereafter '130.

'130 discloses a method of manufacturing a EL device comprising an anode, cathode, and an EL layer between wherein the EL layer comprises the step of co-depositing an organic compound, such as (IIIF, column 16) with a metal salt, such as aluminum chloride (Example 1, 2). '130 discloses supplying the organic compound and aluminum chloride sequentially, however, no invention is involved in the broad concept of performing simultaneously operations, which have previously been performed in sequence. *In re Tatincloux*, 108 USPQ 125. Therefore it would have been obvious to one of ordinary skill in the art to supply simultaneous, i.e. codeposit, the organic material solution and the aluminum chloride rather than the claimed sequentially with a reasonable expectation of success.

'130 does not explicitly disclose the elected species, however the organic compound is disclosed as having aryl substituent and '130 even exemplifies aryl in formula B6 column 17. Therefore it would have been obvious to one of ordinary skill in the art to have selected the elected formula with a reasonable expectation of success because '130 clearly discloses an organic compound encompassing the claimed compound.

Claim 29-30 '130 discloses aluminum chloride and gallium chloride (examples).

8. Claim 19-23, 26, and 29-30 as dependant from 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6316130 by Heuer et al, hereafter '130 in view of WO 00/32719, hereafter '719.

'130 discloses as taught above, additionally, '130 discloses forming the organometallic complex in solution prior to depositing on the substrate, however, '719 discloses an improved method for forming a film or layer of an organic metal complex by vaporizing both the metal salt and the organic complex and codepositing the two on the substrate surface to form a organometallic complex (abstract, page 2). '719 discloses vaporizing each material individually results in a film that does not require multiple syntheses steps and also forms an EL layer with improved performance (abstract, page 2). Therefore it would have been obvious to one of ordinary skill in the art to vaporize both the metal salt and the organic compound and deposit them simultaneously on the substrate to reap the benefits as taught by '719 with a reasonable expectation of success.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Turocy whose telephone number is (571) 272-2940. The examiner can normally be reached on Monday-Friday 8:30-6:00, No 2nd Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

David Turocy
AU 1762



TIMOTHY MEEKS
SUPERVISORY PATENT EXAMINER